David C. Ward et al. Serial No. 07/130,070 Filed: December 8, 1987

Page 2 (Amendment Under 37 C.F.R. §1.116 - May 19, 1993)

wherein each of B, B', B" represents a [purine,] 7-deazapurine, or pyrimidine moiety covalently bonded to the C1'-position of the sugar moiety, provided that whenever B, B' or B" is [purine or] 7-deazapurine, the sugar moiety is attached at the N9-position of the [purine or] 7-deazapurine, and whenever B, B' or B" is pyrimidine the sugar moiety is attached at the N1-position of the pyrimidine;

wherein A comprises at least three carbon atoms and represents at least one component of a signalling moiety capable of producing a detectable signal;

wherein B and A are attached directly or indirectly through a linkage group, said linkage group not interfering substantially with the characteristic ability of said compound to hybridize with said nucleic acid or of A to be detected:

wherein [if B is purine, A is attached to the 8-position thereof,] if B is 7-deazapurine, A is attached to the 7-position thereof, and if B is pyrimidine, A is attached to the 5-position thereof;

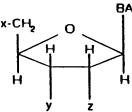
Enz-1 (Div. III)

David C. Ward et al. Serial No. 07/130,070 Filed: December 8, 1987 Page 3 (Amendment Under 37 C.F.R. §1.116 - May 19, 1993)

wherein m, n and p are integers, provided that m and p are not simultaneously 0 and provided further n is never 0; and

wherein z represents H- or HO-; and

- (b) detecting said compound or compounds so as to detect said nucleic acid.
- 151. (Amended) A method for determining the presence or absence of cells having hormone receptor sites on the surfaces thereof in a sample, which method comprises the steps of:
- (a) contacting <u>under binding conditions</u> said sample with a compound having the structure:



wherein B represents a [purine,] 7-deazapurine, or pyrimidine moiety covalently bonded to the C¹¹-position of the sugar moiety, provided that when B is [purine or] 7-deazapurine, it is attached at the N⁰-position of the [purine or] 7-deazapurine, and when B is pyrimidine, it is attached at the N¹-position;

wherein A comprises at least three carbon atoms and represents at least one component of a signalling moiety;

wherein B and A are attached together directly or indirectly through a linkage group;

wherein [if B is purine, A is attached to the 8-position of the purine,] if B is 7-deazapurine, A is attached to the 7-position of the 7-deazapurine, and if B is pyrimidine, A is attached to the 5-position of the pyrimidine, and wherein either z is H- or HO- and x and y together form the moiety

Enz-1 (Div. III)

David C. Ward et al. Serial No. 07/130,070 Filed: December 8, 1987

Page 4 (Amendment Under 37 C.F.R. §1.116 - May 19, 1993)

or x is HO- and y and z together form the moiety

- (b) detecting said compound so as to identify said hormone receptor sites.
- 183. (Amended) The method of claim 181 wherein the linkage group comprises the moiety

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-CH=CH-CH₂-O-CH₂-CH-CH₂-NH-.

Add new claims 185-187 as follows:

- -- 185. (New) The method of claim 130 wherein said microorganism is <u>Streptococcus pyrogenes</u> or <u>Neisseria meningitidis</u> and said antibiotic is penicillin. --
- -- 186. (New) The method of claim 130 wherein said microorganism is <u>Staphylococcus aureus</u>, <u>Candida albicans</u>, <u>Pseudomonas aeruginosa</u>, <u>Streptococcus pyrogenes</u>, or <u>Neisseria gonorrhoeae</u> and said antibiotic is a tetracycline. --

David C. Ward et al. Serial No. 07/130,070 Filed: December 8, 1987

Page 5 (Amendment Under 37 C.F.R. §1.116 - May 19, 1993)

-- 187. (New) The method of claim 130 wherein said microorganism is <u>Mycobacterium tuberculosis</u> and said antibiotic is an aminoglycoside. --

Cancel claim 184.

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